2.1 Biological Resources

A Biological Resources Technical Study was prepared by RC Biological Consulting and is based upon an assessment of existing vegetation communities, plant species, and wildlife species on the project site and surrounding area. Mitigation measures for potential impacts to sensitive resources are also identified. This report is included in Appendix B of the ~~Draft~~ EIR.

2.1.1 Existing Conditions

The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program. Los Coches Creek traverses the site along the southern boundary. Los Coches Creek is bounded by development for its entire upstream length until it crosses under Interstate 8 (I-8), a distance of approximately one mile. The project site is located approximately one mile north/northeast of the Crestridge Conservation Bank. An area of undeveloped lands occurs to the east of the site; however, Rios Canyon Road and a mobile home park occur between the site and the area of undeveloped land. Two abandoned residential structures previously located on the project site, one south of Pecan Park Lane and one north of Pecan Park Lane, were demolished in the summer of 2015. The majority of the project site is undeveloped.

The following discussion summarizes applicable regulations, the existing biological resources onsite including vegetation and wildlife, and then discusses those biological resources which are considered to be "sensitive resources" under appropriate regulations (sensitive habitats, plants, and animals). All ~~animal and~~ plant and animal species observed onsite are listed in Table 2.1-1 and Table 2.1-2, respectively.

2.1.1.1 Regulatory Framework

Biological resources are subject to regulatory oversight at the federal, state, and local levels.

Federal

Endangered Species Act

The federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the ESA. Take of a federally listed threatened or endangered species is prohibited unless a take permit is issued. The ESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the U.S. Fish and Wildlife Service (USFWS) and an incidental take permit has been issued. The ESA also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. The federal ESA also provides for a Section 7 Consultation when a federal permit is required, such as a Clean Water Act Section 404 permit.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), any onsite wetlands and waters of the United States would be subject to permit provisions regulating activities within their boundaries. These provisions are enforced by the U.S. Army Corps of Engineers (USACE), as well as the Environmental Protection Agency (EPA), with technical input from the USFWS. Three factors are

considered in the designation of wetlands: the presence of hydrophytic vegetation, hydric soils, and site hydrology. According to the latest USACE methodology, all three wetland indicators must be present to make a jurisdictional ruling (Environmental Laboratory 1987). Areas indicated as wetlands by all three factors during the rainy season may lack the indicators of hydrology and/or vegetation during the dry season, or the vegetation may have been altered or removed through human disturbance. Such areas may still be regarded as wetlands by resource agencies.

In addition, the USACE has jurisdiction over "waters of the U.S." Waters of the U.S. are defined in 33 Code of Federal Regulations (CFR) Part 328 (referred to as "waters"). The lateral limits of the jurisdiction of waters may be divided into three categories, territorial seas, tidal waters and non-tidal waters. 33 CFR part 328.3 provides the definition of waters of the U.S. as follows:

(a) The term waters of the U.S. means

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are or could be used for industrial purpose by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the U.S. under the definition;

(5) Tributaries of waters identified in (a) (1) through (4) of this section;

(6) The territorial seas

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

Waste treatment systems, including treatments of ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the U.S.

(8) Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA remains with the EPA.

(b) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(c) The term *adjacent* means bordering, contiguous or neighboring. Wetlands separated from other waters of the U.S. by man made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

(d) The term *high tide line* means the line of intersection of the land with the water's surface to the maximum height reached by a rising tide.

(e) The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(f) The term *tidal waters* mean those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun.

The limits of jurisdiction in non-tidal waters are defined in 30 CFR Part 328.4. When non-tidal waters occur in the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark (OHWM).

Migratory Bird Treaty Act

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended (2004). The MBTA is generally protective of migratory birds.

State

California Fish and Game Code

The California Fish and Game Code regulates the taking or possession of birds, mammals, fish, amphibians and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act, Streambed Alteration Agreement regulations, and California Native Plant Protection Act. Fish and Game Code states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto," and "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized.

California Endangered Species Act

The California Endangered Species Act (CESA), similar to the federal ESA, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation "rare species" applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the CESA. State threatened and endangered animal species are legally protected against "take." The CESA authorizes the California Department of Fish and Wildlife (CDFW) to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met.

California Department of Fish and Wildlife – Streambed Alteration Program

The CDFW regulates wetlands under Section 1601/1603 of the California Fish and Game Code through their Streambed Alteration Agreement Program. Any alteration of any stream course within the State of California requires a Streambed Alteration Agreement from the CDFW Section 1601 pertains to public projects where Section1603 applies to private projects and specifically states: "It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity…"

A stream is defined by the California Code of Regulations (14 CCR 1.72) as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic wildlife. This includes watercourses having a surface or subsurface flow that supports or has supported riparian habitat.

The limits of CDFW jurisdiction are defined in the code (Section 1601/1603) as the bed, channel, or bank of any river, stream or lake designated by the department in which there is at any time existing fish or wildlife resource or from which these resources derive benefit.

California Native Plant Protection Act

Section 1900–1913 of the California Fish and Game Code contains the regulations of the Native Plant Protection Act of 1977. The intent of this act is to help conserve and protect rare and endangered plants in the state.

Porter Cologne Act

The Regional Water Quality Control Board (RWQCB) not only regulates impacts to water quality in waters of the U.S. under Section 401 of the CWA, but also regulates the isolated waters that are impacted under the state Porter Cologne Act utilizing a Waste Discharge Requirement. Discharge of fill material into waters of the state not subject to the jurisdiction of the USACE pursuant to Section 404 of the CWA may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

County of San Diego

In San Diego County, regulations have been adopted which define and provide protection to certain types of sensitive biological resources as follows:

Resource Protection Ordinance (RPO)

The purpose of the RPO is to protect sensitive resources and to prevent their degradation and loss. The sensitive resources protected by the RPO include wetlands, wetland buffer areas, and sensitive habitat lands, which are defined as follows:

Lands having one or more of the following attributes are "wetlands'':

aa. At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);

bb. The substratum is predominantly undrained hydric soil; or

cc. An ephemeral or perennial stream is present, whose substratum is predominately non-soil, and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

"Wetland buffer" areas include lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate based on above factors. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width).

"Sensitive habitat lands" include those which support unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants, including the area which is necessary to support a viable population of any of these species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning corridor.

Multiple Species Conservation Program (MSCP) and Biological Mitigation Ordinance (BMO)

In response to the continued loss of sensitive biological resources, especially coastal sage scrub (CSS), the County adopted the MSCP in 1997. The proposed project must conform to the MSCP Subarea Plan, and the project must demonstrate that it has incorporated avoidance measures to meet the preserve design requirements of the Plan. To implement the MSCP Subarea Plan, the County enacted the BMO. Habitats are classified in different "Tier" levels that require different levels of mitigation. Application of the BMO to individual projects is the method by which the County will achieve the conservation goals set forth in the MSCP. Mitigation requirements for different habitat types are based on the location of both the impact and the proposed mitigation. Impacts within core habitat areas or pre-approved mitigation areas require higher mitigation ratios. Conversely, more credit is allowed for preservation or mitigation within core habitat areas or pre-approved mitigation areas.

San Diego County General Plan: Conservation and Open Space Element

The Conservation and Open Space Element of the General Plan provides guiding principles for the conservation of biological resources. This element also outlines land use-based conservation goals and policies that protect the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats.

2.1.1.2 Habitat Types/Vegetation Communities

Habitat descriptions are based on the County of San Diego's Biological Mapping Requirements (Oberbauer 1996); however, it has been shown that habitats in San Diego County are often not pristine and rarely fit into one description. Therefore, the best-fit definition based on the County's current descriptions is provided. Three vegetation types occur within the project site including southern riparian forest, non-native grassland, and urban developed.

Southern Riparian Forest (Habitat Code: 61300)

Southern riparian forest habitat is found onsite along the southern boundary encompassing Los Coches Creek. Black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and California Sycamore (*Plantanus racemosa*) dominate this habitat. In addition, coast live oak (*Quercus agrifolia*) occurs towards the upper portions of the bank and above the top of bank. This habitat is degraded on site with portions of the creek being composed only of dense giant reed (*Arundo donax*). In addition,

several exotics such as California pepper (*Schinus molle*), pecan trees (*Cary* asp.), and olive trees (*Olea europea*) occur within this habitat on site. Degradation to the habitat has resulted from the dumping of debris onsite. As shown in Figure 2.1-1, approximately 1.48 acres of this habitat occurs onsite.

RPO Wetland (Encompassed within the Southern Riparian Forest)

An RPO wetland delineation was performed to identify the portion of the southern riparian forest that also meets the criteria established by the RPO to define County wetlands. Only the northern boundary of the RPO wetland was delineated since proposed impacts would only occur to the north of the wetland.

Non-native Grassland (Habitat Code: 42200)

Non-native grassland is a dense to sparse cover of annual grasses. This habitat type is often associated with native annual forbs, occurring on fine-textured soils that are moist during the winter rainy season and very dry during the summer and fall. Onsite, non-native grassland dominates most of the site occurring throughout the central, eastern, and western portion of the site. The non-native grassland is dominated by wild oats (*Avena* sp.), brome grasses (*Bromus* spp.), rye grasses (*Festuca* spp.) and mustard (*Brassica nigra*). As shown in Figure 2.1-1, this habitat occupies approximately 6.92 acres on site.

Urban Developed (Habitat Code: 12000)

Developed habitat includes areas that have been cleared in the past and/or are still used to access portions of the site. Developed portions onsite include a paved road (Pecan Park Lane, and including the existing SDG&E line and poles), disturbed areas associated with previous commercial development on the north-central portion of the site, landscaped areas, and homes. As shown in Figure 2.1-1, approximately 4.69 acres of developed land occurs onsite.

2.1.1.3 Flora

The project site is highly disturbed with isolated and scattered native plants. The majority of the site is currently comprised of non-native grasslands and developed areas. Sixteen native plant species and 27 non-native plant species were observed onsite. Table 2.1-1 provides a complete list of native and nonnative plant species observed onsite.

2.1.1.4 Wildlife

The majority of the site is currently comprised of non-native grasslands and developed areas; therefore, wildlife diversity is limited. The area of non-native grassland, however, does provide valuable raptor foraging areas. A complete list of wildlife species observed onsite is presented in Table 2.1-2 at the end of this section.

Nineteen bird species, three mammal species, and twelve insect species were detected onsite. Representative species of the grassland habitat onsite include bushtits (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), and house finches (*Carpodacus mexicanus*). Species observed within the southern riparian forest include hooded oriole (*Icterus cucullatus*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), and Wilson's warbler (*Wilsonia pusilla*).

Two raptor species were observed onsite, the red-shouldered hawk (*Buteo lineatus*), and Cooper's hawk (*Accipiter cooperii*). Figure 2.1-1 depicts the location of where these species were generally observed within the southern riparian forest onsite.

2.1.1.5 Sensitive Biological Resources

Sensitive or special-interest plant species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sensitive habitats, as identified by these same groups, are those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups.

Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non-native species, or a combination of all of these factors.

Sensitive Plant Species

No rare, threatened, endangered, or sensitive plant species were observed onsite. There are 24 sensitive plant species known from the general area. Of these, only one has a moderate potential to occur onsite, the state and federally endangered willowy monardella (*Monardella linoides* ssp. *viminea*). The site's riparian area was surveyed and no willowy monardella plants were identified onsite. Table 2.1-3 lists sensitive plant species with the potential to occur onsite.

Individual Coast Live Oak Trees

Coast live oak trees occur sporadically throughout the site and outside of the upper bank of the southern riparian forest. Although individual oak trees are not specifically afforded protection under the BMO, oak trees are considered a sensitive resource due to both their aesthetic value and value as wildlife habitat.

Southern Riparian Forest (Tier I)

Southern riparian forests are associated with creeks and drainages that are protected by the County, CDFW, USACE, RWQCB, USFWS, and EPA. Riparian habitats, in general, are considered sensitive biological resources because they have been dramatically reduced in San Diego County and across the nation and typically represent wetlands. Due to the regional and national loss of wetland habitat, resource agencies have a "no net loss policy" for wetlands. Riparian habitat is important because it has high levels of food and nutrients, high wildlife diversity, and it is a valuable water source in the arid climate of Southern California. This habitat's sensitivity and its ultimate reduction is evidenced by the large number of declining bird species closely associated with, or dependent on this habitat type for reproduction and ultimate success. This habitat is in a degraded condition onsite as evidence by a large component of invasive exotic species and trash. This habitat would be considered a Tier I habitat in the MSCP.

RPO Wetland (Encompassed within the Southern Riparian Forest)

An RPO wetland delineation was performed to delineate the limits of the southern riparian forest that also meet the criteria established under the RPO that defines County wetlands. The northern limits of this boundary are indicated on Figure 2.1-1.

Non-native Grassland (Tier III)

Non-native grasslands onsite are afforded protection by the County of San Diego BMO due to this community's value as raptor foraging habitat. The BMO requires that impacts to non-native grassland be mitigated.

Sensitive Wildlife Species

Sensitive or special-interest wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors.

The CDFW also lists species as threatened or endangered, or candidates for listing as threatened or endangered. Lower sensitivity animals may be listed as "species of special concern." The CDFW further classifies some species under the following categories: "fully protected," "protected furbearer," "harvest species," "protected amphibian," and "protected reptile." The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFW; "fully protected" indicates that a species can be taken only for scientific purposes. The designation "harvest species" indicates that take of the species is controlled by the state government. Two sensitive species were observed onsite, the Cooper's hawk and the red-shouldered hawk. These species are discussed below. Figure 2.1-1 depicts the location of where these species were generally observed within the southern riparian forest onsite.

Cooper's Hawk

Status: California Species of Special Concern when nesting

The Cooper's hawk, when nesting, is listed as a California Species of Special Concern (SSC) by CDFW. This species is a year-round resident in southern California. It is most likely to occur in areas with dense stands of live oak, riparian deciduous, or other forest habitats near water. Two individuals of this species were observed onsite, primarily in the southern riparian forest onsite and offsite. This is a covered species within the MSCP.

Red-shouldered Hawk

Status: County Sensitive Species

The red-shouldered hawk is a County sensitive species. The red-shouldered hawk is a year-round resident that frequents low elevation riparian woodlands, especially where interspersed with swamps and emergent wetlands. One individual of this species was observed roosting within the southern riparian forest.

Additional Sensitive Species with the Potential to Occur

Fifty-one wildlife species have the potential to occur onsite. Of the 51 species with the potential to occur, none have a high potential to occur and only eight have a moderate potential to occur onsite. The eight species with a moderate potential to occur onsite are: two-stripe garter snake (*Thamnophis hammondii*), black-shouldered kite (Elanus caeruleus), common barn-owl (*Tyto alba*), loggerhead shrike (Lanius ludovicianus), turkey vulture (Cathartes aura), western bluebird (*Sialia mexicana*), yellow warbler (*Dendroica petechia brewsteri*), and yellow-breasted chat (*Icteria virens*). The two-stripe garter snake, common barn-owl, yellow warbler, and yellow-breasted chat are all California SSCs. The loggerhead shrike is a California SCC and a Federal Species of Concern. The turkey vulture and western bluebird are County sensitive species. The black-shouldered kite is considered sensitive by the CDFW when nesting and is a sensitive species in the County. California gnatcatcher (*Polioptila californica*), a federally listed threatened species and the Hermes copper butterfly (*Lycaena hermes*), a federal candidate for listing have a low potential to occur on the site due to a lack of habitat. Focused surveys were performed for the least Bell's vireo (*Vireo bellii pusillus*), a state-and federally listed endangered species and the Quino checkerspot butterfly

(Euphydryas editha quino), a federally listed endangered species. These species are discussed below. Additional sensitive wildlife species with the potential to occur onsite are identified in Table 2.1-4 at the end of this section.

Least Bell's Vireo

Status: State and Federally listed as Endangered

Formerly a common and widespread resident, the least Bell's vireo is now a rare, local, summer resident below about 600 meters (2,000 feet) in willows and other low riparian habitat. The population declined primarily from cowbird parasitism and habitat destruction. Due to the disturbed nature of the southern riparian forest onsite, it appears to be poor least Bell's vireo habitat. Focused surveys were performed to determine the presence/absence of the least Bell's vireo and other sensitive riparian dependent bird species were performed onsite. Eight least Bell's vireo surveys were performed and no vireos were found onsite. The portion of Los Coches Creek that traverses the site has a large component of exotic species, and does not have the well- developed understory that least Bell's vireos are typically associated with during the breeding season.

Quino Checkerspot Butterfly

Status: Federally listed as Endangered

A survey for the host plant, dot-seed plantain, was performed onsite. No host plants were documented onsite in the spring of 1999, nor do any "hilltopping" locations occur onsite. As a result of the lack of host plants or hilltopping locations onsite, it is unlikely that the Quino checkerspot butterfly uses the site. However, to be confident that Quino checkerspot butterflies do not occur onsite, a protocol survey was performed in the spring of 2000. A Quino Checkerspot butterfly surveys was also performed in 2003. No Quino checkerspot butterflies were identified onsite nor were any host plants detected during any of the surveys. Therefore, this species has a low potential to occur onsite.

California Gnatcatcher

Status: Federally listed as Threatened, State SSC

The California gnatcatcher, a federally listed threatened species and California SSC, is a small gray songbird that is a resident of scrub-dominated communities in southwestern California from the Los Angeles Basin through Baja California, Mexico. California gnatcatcher populations have declined due to extensive loss of Diegan CSS habitat to urban and agricultural uses. No CSS or suitable habitat occurs onsite or near the site. This species is not expected to occur onsite due to a lack of suitable foraging and nesting habitat.

Hermes Copper Butterfly

Status: Federal Candidate, County Sensitive Species

The Hermes copper butterfly is an endemic species to the San Diego bioregion. Except for a few records in northern Baja California, it has never been recorded anywhere else in North America. It is classified as a federal candidate species and a County sensitive species. It occurs primarily in CSS and southern mixed chaparral communities. Its larval host plant is spiny redberry (*Rhamnus crocea*). Adults feed on nectar primarily of flat-topped buckwheat (*Eriogonum fasciculatum*), but they have also been observed using slender sunflower (*Helianthus gracilentus*) and other plants in the Asteraceae family. They are sedentary and rarely move more than 100 yards from their host plant. As

a result they do not make long distance dispersals and their populations are usually at low enough levels that it does not force dispersal. No host plants (spiny redberry) or nectar plants (flat-top buckwheat) occur onsite nor does any CSS or mixed chaparral. This species is not expected to occur onsite.

2.1.1.6 Wetlands/Jurisdictional Waters

A blue-line stream, Los Coches Creek, traverses the site from east to west along the southern boundary. Los Coches Creek and the associated habitat is assessed and discussed below regarding USACE and CDFW jurisdiction and their relationship as wetlands within the RPO.

Based on the definition of waters of the U.S. and limits of jurisdiction, waters of the U.S. occur onsite and would be located at the same location as the RPO wetland line identified on Figure 2.1-1. The limits of the southern riparian forest would also be the limits of the CDFW jurisdiction onsite. If any regulated impacts are proposed to the southern riparian forest as a result of the proposed project, then the CDFW must be notified pursuant to Section 1602 of the Fish and Game Code.

2.1.1.7 Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors, also called dispersal corridors or landscape linkages, are linear features with a primary wildlife function to connect at least two habitat areas. Other definitions of corridors and linkages are as follows:

1. A corridor is a specific route that is used for movement and migration of species. A corridor may be different from a "linkage" because it represents a smaller or narrower avenue for movement. "Linkage" shall mean an area of land which supports or contributes to the long-term movement of wildlife and genetic material.
2. A linkage is a habitat area that provides connectivity between habitat patches, as well as year-round foraging, reproduction, and dispersal habitat for resident plants and animals.

Wildlife corridors and linkages are important features in the landscape, and the viability and quality of a corridor or linkage are dependent upon site-specific factors. Topography and vegetative cover are important factors for corridors and linkages. These factors should provide cover for both predator and prey species. They should direct animals to areas of contiguous open space or resources and away from humans and development. The corridor or linkage should be buffered from human encroachment and other disturbances (e.g., light, loud noises, domestic animals) associated with developed areas that have caused habitat fragmentation. Wildlife corridors and linkages may function at various levels depending upon these factors and, as such, the most successful of wildlife corridors and linkages accommodate all or most of the necessary life requirements of predator and prey species.

Width and connectivity are assumed to be the primary factors of a "good" corridor and with that connectivity should also be included the concept of stepping stone reserves for pollinators, seed dispersers, and other flying species such as birds, bats, and insects. The level of connectivity needed to maintain a population of a particular species varies with the demography of the population, including population size, survival and birth rates, and genetic factors such as the level of inbreeding and genetic variance. Areas not considered as functional wildlife dispersal corridors or linkages are typically obstructed or isolated by concentrated development and heavily-traveled roads, known as "chokepoints." One of the worst scenarios for dispersing wildlife occurs when a large block of habitat leads animals into "cul-de-sacs" of habitat surrounded by development. These habitat cul-de-sacs frequently result in adverse human/animal interface.

The project site is located within the Metro-Lakeside-Jamul Segment of the MSCP. Five linkages have been identified within that segment. The project site is located approximately one mile north/northeast of the CDFW Crestridge Ecological Reserve and Crestridge Conservation Bank, identified as one of the linkages. Los Coches Creek originates within developed lands to the northeast of the project site and is bounded by development for its entire upstream length until it crosses under I-8, a distance of approximately one mile to the east. Any wildlife movement potential from the north is severely restricted by a culvert at I-8. From I-8 southwest, Los Coches Creek continues to travel though developed lands including I-8, which runs parallel to and 250 to 400 feet north of the creek, and existing residential development immediately south of the creek and project site. ~~Los Coches Creek continues downstream from the site through development.~~ Specifically, d~~D~~evelopment and avocado orchards occur between the site and the Crestridge Conservation Bank located to the south. Rios Canyon Road and a mobile home park are located to the east of the site. Undeveloped lands are located further east; however, due to Rios Canyon Road and the mobile home park, this undeveloped area would not serve as an important local wildlife movement corridor or habitat linkage. ~~In addition, the project site does not support any nursery sites.~~Finally, Los Coches Creek crosses back under I-8 to a highly developed residential and commercial area through another culvert approximately 1000 feet west of the project, again severely restricting wildlife movement. Therefore, Los Coches Creek may provide habitat to support local wildlife movement, but it does not provide regional corridors or linkages. In addition, Los Coches Creek on the project site does not support any nursery sites and provides limited live-in habitat given it relatively narrow width.

2.1.2 Analysis of Project Effects and Determination as to Significance

Impacts on biological resources can be categorized as either direct, indirect, or cumulative. Direct impacts are a result of project implementation, and generally include: the loss of vegetation and sensitive habitats and populations; the introduction of non- native species which may out-compete and displace native vegetation; activity-related to mortalities of wildlife; loss of foraging, nesting or burrowing habitat; destruction of breeding habitats; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include: off- road vehicle use which impacts sensitive plant or animal species; harassment and or collection of wildlife species; increased noise and lighting; and inadvertent increased wildlife mortalities along roads. Cumulative impacts occur as a result of on-going direct and indirect impacts for unrelated or fragmented projects overall. Cumulative impacts are assessed on a regional basis and determine the overall effect of numerous activities on a sensitive resource over a larger area.

Generally, there are three levels of adverse impacts associated with biological resources: significant, locally important, and not significant. The County of San Diego adopted the regional Multiple Species Conservation Program and Subarea Plan in 1997. To implement the Subarea Plan, the County enacted the BMO. These documents identify biological resources and, indirectly, thresholds for significance. Habitats are classified in different tier levels which require different levels of mitigation. Habitats within Tiers I to III, require mitigation under the BMO and therefore are considered significant.

These levels of impacts were applied to the project site and are used below in the discussion of specific potential impacts. Figure 2.1-2 depicts the proposed impact areas.

A fire protection plan has been prepared for the project (Appendix H). The fire protection plan has allowed for the reduction of the 100-foot standard fire clearing to a minimum of 40 feet in some portions of the project. A non-combustible wall and enhanced fire resistive constructions are being provided as mitigation measures for the reduction. These measures are presented in Section 2.4, Hazards and Hazardous Materials, of the EIR. The Lakeside Fire Marshal has

conditionally approved the fire protection plan provided that the revegetation plan for the project is implemented and invasive exotic plants be removed from the wetland.

For the purpose of this EIR, the basis for the determination is CEQA Guidelines, Appendix G and County's Guidelines for Determining Significance, Biological Resources (County of San Diego 2010a). As indicated in CEQA Guidelines Appendix G, a significant impact to biological resources may occur if the project would:

1. *Special Status Species*: Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
2. *Riparian Habitat/Sensitive Natural Community*: Have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.
3. *Jurisdictional Waters and Waterways:* Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. *Wildlife Movement and Nursery Sites*: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site.
5. *Local Policies, Ordinances, Adopted Plans*: Conflict with one or more local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance, and/or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The County's Guidelines for Determining Significance, Biological Resources (County of San Diego 2010a) includes specific guidelines pertaining to each of these CEQA Guidelines Appendix G issue questions to determine significance. These guidelines are presented below under each issue areas.

2.1.2.1 Issue 1: Special Status Species

Guidelines for Determination of Significance

Based on the County's Guidelines for Determining Significance, Biological Resources, adopted September 15, 2010, the project may have a significant impact to a special status species if:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact an on-site population of a County List A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern. Impacts to these species are considered significant; however, impacts of less than 5 percent of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

C. The project would impact the long-term survival of a County List C or D plant species or a County Group II animal species.

D. The project may impact arroyo toad aestivation, foraging or breeding habitat. Any alternation of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically-based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat are considered significant; however, impacts of less than 5 percent of the raptor foraging habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres of more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

J. The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

K. The project would impact occupied Hermes copper habitat.

L. The project would impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

Species	Breeding Season
Coastal cactus wren	February 15 to August 15
Coastal California gnatcatcher	February 15 to August 31
Least Bell's vireo	March 15 to September 15
Southwestern willow flycatcher	May 1 to September 1
Tree-nesting raptors	January 15 to July 15
Ground-nesting raptors	February 1 to July 15
Golden eagle	January 1 to July 31

Species	Breeding Season
Light-footed clapper rail	February 15 to September 30

Impact Analysis

Individual Coast Live Oak Trees

Under the proposed site plan, coast live oak trees occurring within the southern riparian forest habitat within Los Coches Creek have been avoided and 15 individual coast live oak trees, seven of which occur within existing developed portions of the site, would be removed to accommodate structures, roadways, parking lots, and grading on the project site. ~~Due to the development constraints, it is infeasible to redesign the project to avoid these individual trees.~~ The project limits on the southeast corner of the site, where a cluster of eight individual oaks are located, was determined by the extent of blasting and excavation required for the project. The grading slope extending down from the proposed trail, is engineered to support the trail (i.e., so that there is no slope failure which would destroy the trail). The cluster of 8 individual oaks is located within a fill area associated with the engineered slope (which protects the trail from structural failure). Therefore the trees located in a fill area cannot be avoided in order to protect trail. This grading balance makes avoiding additional oaks infeasible. Although not afforded protection under the BMO, individual oak trees are considered locally important; therefore, impacts to these 15 individual coast live oak trees are considered significant (**Impact BIO-1**).

Cooper's Hawk and Red-shouldered Hawk

Cooper's hawk and red-shouldered hawk (both County Group I animal species) were observed within the southern riparian forest habitat onsite. Cooper's hawk is a SSC and an MSCP covered species. Red-shouldered hawk is a County sensitive species. Implementation of the proposed project would not result in direct impacts to the southern riparian forest onsite. However, the project would reduce foraging habitat for these species through direct impacts to 6.91 acres of non-native grassland. Impacts to foraging habitat and potential indirect impacts to these sensitive species during the nesting season would be considered significant. Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. In particular, accessibility to the site, trash dumping, and increased noise and light may cause significant impacts. The impacts to these two sensitive species are addressed through impacts to their habitat (see **Impacts BIO-3** and **BIO-4** below).

Least Bell's Vireo

Eight least Bell's vireo surveys were performed and no vireos were found onsite. The portion of Los Coches Creek that traverses the site has a large component of exotic species, and does not have the well-developed understory that least Bell's vireos are typically associated with during the breeding season. However, in the event that least Bell's vireos move into the riparian area prior to project construction, and construction is proposed during the breeding season and within 300 feet of the riparian habitat, an indirect impact to this species would occur (**Impact BIO-2**).

2.1.2.2 Issue 2: Riparian Habitat or Sensitive Natural Community

Guidelines for Determination of Significance

Based on the County's Guidelines for Determining Significance, Biological Resources, adopted September 15, 2010, the project may have a significant impact to riparian habitat or another sensitive

natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS if:

A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habit or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1-acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g. vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFW, and the County: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures or infrastructure; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more than historical low groundwater levels.

D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

    - A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25 percent.

- A wetland buffer of 50-100 feet is appropriate for moderate- to high-quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25 percent) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
- Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO wetland is within a regional corridor or supports significant populations of wetland associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

Impact Analysis

Southern Riparian Forest and Buffer (Tier I/ Sensitive Habitat Land): Direct Construction Impacts

This habitat is a Tier I habitat within the MSCP and a Sensitive Habitat Land as defined by the RPO. Tier I habitats are the most sensitive habitats within the region. No direct construction impacts would occur to the southern riparian forest onsite. The proposed project has been designed so individual components (buildings, parking areas) are not located in the southern riparian forest habitat.

Approximately 1.44 acres of the 1.48 total acres of southern riparian forest would be placed in an approximately 2.58 acre open space easement (Figure 2.1-3). The remaining 0.04 acre is located within undeveloped sections of road easements to the east and west of the proposed open space and is impact neutral. The project provides a minimum 52-foot buffer between the edge of the development and the riparian habitat. The easement restricts future activities allowed in this area. The sole exceptions to the prohibitions are: continued use and maintenance of the existing access and utility easements; activities required to be conducted pursuant to revegetation, habitat management, or landscaping plan approved by the Director of Planning and Development Services. No development would occur within the southern riparian forest habitat area or the easements as a result of this project. Therefore, no impact to southern riparian forest habitat would occur with implementation of the proposed project.

Southern Riparian Forest and Buffer: Removal of Invasive Exotic Species

Impacts may occur within this habitat for the removal of invasive exotic plant species. Provided the removal is performed without the use of mechanized equipment and impacts to bed and/or bank do not occur, a permit from the USACE would not be required. However, the removal and continual eradication of exotic invasive species within this area may require a Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game Code.

Southern Riparian Forest and Buffer: Indirect Construction Impacts

General construction activities in the vicinity of Los Coches Creek have the potential to indirectly impact riparian resources. Activities such as storage and fueling of construction-related equipment could potentially release contaminants and/or hazardous materials into the riparian area, and could, therefore, significantly impact riparian resources. Short-term noise impacts related to construction could impact sensitive wildlife utilizing the riparian area. These are potentially significant indirect impacts (**Impact BIO-3**).

Southern Riparian Forest and Buffer: Indirect Impacts from Post-Construction Project Operation

Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. In particular, accessibility to the site, trash dumping, and increased noise and light from operation of the proposed project may cause adverse impacts. These effects could be potentially significant and require mitigation (**Impact BIO-4**).

Non-native Grassland – Tier III – Direct Construction Impacts

Non-native grassland is a Tier III habitat within the MSCP. Tier III habitats are regionally common habitats but are afforded protection within the MSCP. Non-native grassland would be removed during clearing and grading to prepare building pads and parking areas for construction. Impacts to this habitat would be considered locally important and significant in accordance with the BMO. As shown in Table 2.1-5, approximately 6.92 acres of this habitat are proposed to be impacted on and off-site (**Impact BIO-5**). Approximately 0.01 acre is impact neutral within an existing road easement that is not proposed to be impacted as the result of this project.

Urban Developed – Tier IV

Urban developed lands are a Tier IV habitat within the MSCP. Impacts to Tier IV habitats do not require mitigation within the MSCP. Impacts to urban developed lands would not be considered significant. Approximately 4.69 acres of this habitat are proposed to be impacted. The area of Urban Developed land that would be impacted includes the area where existing SDG&E lines and poles would be relocated from their current location on Pecan Park Lane to the northern boundary of the site along Olde Highway 80. The specific habitat impact associated with the SDG&E line and pole relocation is to the Urban Developed habitat only.

2.1.2.3 Issue 3: Jurisdictional Waters and Waterways

Guidelines for Determination of Significance

Based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements (2010a) and BMO guidelines, the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to jurisdictional wetlands and waterways. The project would have a substantial adverse project-level or cumulative environmental effect on jurisdictional wetlands and waterways through direct removal, filling, hydrological interruption or other means if:

A. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by the USACE, CDFW, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance or the

substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the RPO, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

- A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25 percent.
- A wetland buffer of 50-100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25percent) with highly erosive soils. Within the 50-100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
- Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO wetlands is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the ESA) that require greater wetland buffer widths.

Impact Analysis

RPO Wetland and Wetland Buffer

The RPO wetland encompasses the southern riparian forest and would not be impacted by the proposed project. Portions of the southern riparian forest are not included within the RPO wetland due to the fact that they do not meet any of the three criteria to be considered a “wetland” under the RPO. These portions of southern riparian forest that are outside of the RPO wetland are comprised primarily of “non-hydrophytic” plant species such as coast live oaks, do not have hydric soils, and are outside of the streambed.

No direct impacts to the RPO wetland would occur as a result of the project. However, 1.14 acres would be revegetated to enhance the buffer between the RPO wetland and development. A wetland buffer ranging in width from 52 to 102 feet (Figure 2.1-3) from the northern RPO wetland limits has been identified. The buffer includes all of the oak trees associated with the southern riparian forest as

required by the RPO. The RPO wetland buffer is proposed to be enhanced through revegetation as a native shrub grass community where it is currently composed primarily of non-native grassland. Temporary grading activities in the RPO buffer would be mitigated through the implementation of a revegetation plan (**Impact BIO-6**).

2.1.2.4 Issue 4: Wildlife Movement and Nursery Sites

Guidelines for Determination of Significance

Based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements (2010a), the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to wildlife movement and nursery sites. The project would interfere substantially with the movement of a native resident of migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites if:

A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkages. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement. For stepping-stone/archipelago corridors, a project does not maintain visual continuity between habitat patches.

Impact Analysis

As discussed in Section 2.1.1.7, the project site does not support a wildlife corridor or nursery sites. While the portions of the site associated with Los Coches Creek may provide for the movement of some wildlife, the project would not directly impact these resources. The proposed project would include the removal of invasive exotic plant species as defined by the California Invasive Plant Council (CAL-IPC) Invasive Plant Inventory within the entire open space easement. Furthermore, *Arundo donax* removal has taken place and would continue in the open space easement as performed by the Lakeside Riverpark Conservancy. The Lakeside Riverpark Conservancy has a multi-year program to remove invasive exotic species in this area, as part of a larger effort. The purpose of the invasive exotic plant removal is to return the wetland to a healthy condition. Preservation of the creek area in a dedicated open space easement and the removal of invasive exotic plants would improve the condition of the creek and associated riparian habitat. . Therefore, impacts to wildlife corridors and nursery sites are determined to be less than significant.

2.1.2.5 Issue 5: Local Policies, Ordinances, Adopted Plans

Guidelines for Determination of Significance

Based on the County's Guidelines for Determining Significance, Biological Resources, adopted September 15, 2010, the project may have a significant impact related to a conflict with a local policy, ordinance, or habitat conservation plan protecting biological resources (such as a tree preservation policy or ordinance, adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan) if:

A. For lands outside of the MSCP, the project would impact CSS vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California CSS Natural Communities Conservation Planning Process (NCCP) Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigated CSS habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the BMO.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact cover populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

Impact Analysis

The proposed project and mitigation measures were designed in conformance with all relevant local policies, ordinances, and adopted plans (including the MSCP, BMO, and RPO), as well as federal and state regulations. With implementation of Mitigation Measures M-BIO-1 through M-BIO-6, the proposed project would be in compliance with local policies, ordinance, and adopted plans, as well as federal and state regulations. This is considered a less than significant impact.

2.1.3 Cumulative Impact Analysis

Cumulative impacts of the proposed project were evaluated within the context of past, present, and future projects located within the cumulative impact study area that could cumulatively contribute to the proposed project's significant impacts. As previously noted, the proposed project is located within the MSCP and is subject to requirements of the MSCP Subarea Plan, the BMO, and the RPO. The proposed project is surrounded by developed land with the exception of Los Coches Creek to the south and an undeveloped area to the east that is separated from the project site by Rios Canyon Road and mobile homes. Avocado orchards separate the project site from the Crestridge Conservation Bank, located one mile to the southwest of the proposed project site. Given the regional context of the project, cumulative projects were selected from within the same watershed as the proposed project, generally within one mile of the project site. These cumulative projects are also located within the MSCP and would be subject to the same requirements as the proposed project.

Four projects were identified within the cumulative impact study area – the Lakeside Tractor Supply Project, Lake Jennings Park Road Subdivision Project, PDMWD's Eastern Service Area Secondary Connection Project, and Peter Rios Estates Apartment Complex Project. The locations of these projects are shown in Figure 1-9. Project information and potential impacts on biological resources are shown in Table 2.1-6.

Based on the Biological Letter Report for the Lake Jennings Park Road Subdivision Project (REC Consultants Inc., 2014), the site contains non-native grassland, coastal sage scrub, disturbed wetland, ornamental vegetation, and disturbed land. Based on the Biological Resource Letter Report for the Lakeside Tractor Supply Project (Cummings and Associates, 2014), the site is occupied by three habitat types: Diegan coastal sage scrub, non-native grassland, and disturbed habitat. Based on the Initial Study/Mitigated Negative Declaration (IS/MND) for the Eastern Service Area Secondary Connection Project (Helix Environmental Planning, Inc., 2015), 12 vegetation communities or unvegetated cover types occur within the study area: southern riparian forest-disturbed, southern willow scrub-disturbed, mule fat scrub, disturbed wetland, streambed, coast live oak woodland, Diegan coastal sage scrub, non-native grassland, eucalyptus woodland, non-native vegetation, disturbed habitat, and developed land. The Peter Rios Estates Apartment Complex Project site contains three vegetation communities: disturbed habitat, urban/developed, and riparian channel (coast live oak woodland) (Pacific Southwest Biological Services, Inc., 2014). The Evergreen Nursery Project is not located within the cumulative geographic scope for biological resources. This area is already disturbed/developed and therefore, is not considered as part of the geographic scope for biological resources.

2.1.3.1 Special Status Species

Individual Coast Live Oak Trees

The proposed project would result in the loss of 15 individual coast live oak trees. Based on the Biological Resource Letter Report for the Tractor Supply Project (Cummings and Associates, 2014), two coast live oaks were noted just offsite along the southern property boundary within disturbed habitat. However, the Lakeside Tractor Supply Project would not impact the two coast live oaks as they are located offsite. A large coast live oak tree occurs near the access route to the Eastern Service Area Secondary Connection Project's reservoir site, but it would be retained. A massive coast live oak occurs on the Peter Rios Estates Apartment Complex Project site. However, the impact to coast live oak woodland would be mitigated to a less than significant level because the project would be designed to require the remnant woodland habitat to be within an open space easement and a limited building zone easement (Pacific Southwest Biological Services, Inc., 2014). Coast live oak trees do not occur on the Lake Jennings Park Road Subdivision Project (REC Consultants, Inc., 2014). Therefore, the Lakeside Tractor Supply Project, Eastern Service Area Secondary Connection Project, Lake Jennings Park Road Subdivision Project, and Peter Rios Estates Apartment Complex Project would have no potential to add to a cumulative loss of this resource. The proposed project would implement Mitigation Measure M-BIO-1 which requires offsite acquisition of 0.90 acre of oak woodland within an approved mitigation bank within the MSCP (Crestridge Conservation Bank or other MSCP approved mitigation area). The acquisition of this habitat would ensure the preservation in perpetuity. This would offset project impacts to individual coast live oak trees and reduce the impact to below a level of significance. Therefore, with implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to individual coast live oak trees.

Sensitive Wildlife Species

The project would result in an indirect impact to southern riparian forest, which is known to support Cooper's hawk, and red-shouldered hawk on the project site. Of the cumulative projects, the Lake Jennings Park Road Subdivision Project, Eastern Service Area Secondary Connection Project, and Peter Rios Estates Apartment Complex have a riparian or eucalyptus woodland community that could support these or other sensitive raptor species. There is a potential for the project to add to a cumulative loss of this resource through potential indirect impacts on these species. However, the cumulative projects are expected to implement similar mitigation (i.e., nesting raptor survey prior to construction) as the proposed project to reduce impacts to a less than significant level. The proposed project would implement Mitigation Measure M-BIO-3 which would ensure that fueling and storage of construction equipment takes place at least 100 feet away from the floodway and outside the RPO buffer, locating and/or shielding light away from the southern riparian forest, and conducting a nesting raptor survey prior to initiation of project construction. The incorporation of a 500-foot buffer for nesting raptors is consistent with the MSCP, which has been approved by the wildlife agencies. Implementation of M-BIO-3 would reduce the indirect impact from the project to a less than significant level. Therefore, with implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to sensitive raptor species.

Least Bell's vireo was not observed on the project site. Similarly, none of the cumulative projects support suitable habitat for least Bell's vireo because the sites do not contain willow riparian habitat (Helix Environmental Planning, Inc., 2015; Cummings and Associates, 2014; REC Consultants Inc., 2014; Pacific Southwest Biological Services, Inc., 2014). If pre-construction surveys identified least

Bell's vireo on the project site prior to construction, mitigation measures would be implemented to ensure there were no direct or indirect impacts on this species. Therefore, with implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to least Bell's vireo.

2.1.3.2 Habitat or Sensitive Natural Community

Non-native Grassland

The proposed project would result in an impact to approximately 6.91 acres of non-native grassland, which may result in significant cumulative impacts to this habitat prior to mitigation. Impacts to non-native grassland would be mitigated through the dedication of onsite and offsite easements. The mitigation would be adopted in accordance with the MSCP and the BMO, which have been adopted to address cumulative impacts on a regional level. The MSCP and the BMO allow for limited impacts to protected habitat; however, their primary goals are to ensure protection of regional blocks of biologically viable habitat of adequate size to preserve sensitive species. Each cumulative project is expected to mitigate significant project-level impacts to below a level of significance in accordance with the mitigation requirements of the MSCP.

According to the MSCP Subarea Plan, ~~W~~within the MSCP, there are over 10,000 acres of grassland habitat (County of San Diego, 1997). While loss of at least 6.91 acres represents an incremental decrease of the overall non-native grassland habitat within the MSCP, it is not considered to be cumulatively significant.

As shown in Table 2.1-7, the loss of biological resources due to development of cumulative projects (Lakeside Tractor Supply Project, Lake Jennings Park Road Subdivision Project, and Eastern Service Area Secondary Connection Project) would be 7.56 acres of non-native grassland. The IS/MND for the Eastern Service Area Secondary Connection Project concluded that project impacts to non-native grassland are not considered significant as permanently impacted areas are restricted to small, remnant areas of undeveloped land surrounded on all sides by urban development. These areas have a history of disturbance from previous human occupancy of the site, including mowing and vegetation clearing (Helix Environmental Planning, Inc., 2015). The Lakeside Tractor Supply Project would mitigate impacts to non-native grassland by up-tiering to Tier II habitat. As such, Tier II habitats are anticipated to be purchased to mitigate for the loss of non-native grassland on-site (Cummings and Associates, 2014). The Lake Jennings Park Road Subdivision Project would mitigate impacts to non-native grassland by purchasing 2.1 acres of non-native grassland within a County- and Wildlife Agency-approved mitigation bank in the County Subarea (REC Consultants Inc., 2014). With implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to non-native grassland.

Southern Riparian Forest

The proposed project would not result in direct impacts to southern riparian forest; however, indirect impacts are anticipated during project construction and operation. The proposed project would implement Mitigation Measure M-BIO-3 which would ensure that fueling and storage of construction equipment takes place at least 100 feet away from the floodway and outside the RPO buffer, locating and/or shielding light away from the southern riparian forest, and conducting a nesting raptor survey prior to initiation of project construction. The incorporation of a 500-foot buffer for nesting raptors is consistent with the MSCP, which has been approved by the wildlife agencies. Implementation of M-BIO-3 would reduce the indirect impact from the project to a less than significant level. None of the cumulative projects contain southern riparian forest. With

implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to southern riparian forest.

2.1.3.3 Jurisdictional Waters and Waterways

Since the southern riparian forest occurs within the RPO wetland, the cumulative impact analysis is consistent with the analysis provided in Section 2.1.3.2. There are no jurisdictional wetlands or waterways on the Lakeside Tractor Supply project site (Cummings and Associates, 2014). The Lake Jennings Park Road Subdivision Project site contains 0.06 acre of disturbed wetland, which originates from a culvert that drains the channel's runoff from the adjacent housing development located to the east of the site. It has been determined that the disturbed wetland does not meet the RPO wetland definition because it is caused by a man-made structure (the culvert) and meets the criteria in RPO section 86.602(q)(2)(aa). The disturbed wetland also does not qualify as federal or state jurisdictional waters; therefore, the Lake Jennings Park Road Subdivision Project would have no impacts to jurisdictional wetland or waters (REC Consultants Inc., 2014). The Peter Rios Estates Apartment Complex Project site does not contain any wetlands as defined by Section 404 of the Clean Water Act; therefore, no impacts to wetlands at the Peter Rios Estates Apartment Complex Project will occur. This project site does contain a channel that would be considered a state streambed (CDFW streambed) and U.S. jurisdictional waters; however, this area was entirely avoided by the project design; therefore, no permitting is necessary (Pacific Southwest Biological Services, Inc., 2014). The IS/MND for the Eastern Service Area Secondary Connection Project concluded that the project would result in temporary impacts to less than 0.01 acre (0.004 acre) of USACE non-wetland Waters of the U.S. (WOUS) and CDFW streambed. However, impacts would be mitigated at a 1:1 ratio (Helix Environmental Planning, Inc., 2015). All cumulative projects would be required to mitigate impacts in accordance with regulations (e.g., Clean Water Act, Fish and Game Code, and RPO) so that a no net loss of wetland/riparian habitat would occur. Therefore, compliance with existing regulations and implementation of project mitigation would ensure that no cumulative impact to jurisdictional waters and waterways would occur. With implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant cumulative impact to jurisdictional waters and waterways.

2.1.3.4 Wildlife Movement and Nursery Sites

The proposed project would not result in temporary or permanent impacts to wildlife movement or nursery sites due to project construction and operation. The IS/MND for the Eastern Service Area Secondary Connection Project concluded that no portions of the reservoir site or discharge pipeline alignment are within pre-approved mitigation areas or conserved lands. The only portion of the project area that might be expected to contribute to some level of wildlife movement is Los Coches Creek and associated riparian habitat. The Eastern Service Area Secondary Connection Project would not result in permanent impacts to wildlife movement along Los Coches Creek. The only impact to the creek would be the removal of a one-lane wooden bridge over an unvegetated portion of the creek and trenching through this area for placement of a pipeline. These impacts would be temporary. The trenched area would be returned to its pre-impact contours following placement of the pipeline. The proposed activities would not result in removal of riparian vegetation or placement of permanent barriers to wildlife movement along the creek. Wildlife would be able to move around work areas during temporary construction activities (Helix Environmental Planning, Inc., 2015). Therefore, potential impacts on wildlife corridors would be less than significant.

The Lakeside Tractor Supply Project is surrounded by existing developed areas and roads, and would not interfere with the movement of any native resident or migratory fish or wildlife species, or

established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Based on the Biological Resources Letter Report for the Lake Jennings Park Road Subdivision Project, the site has no connection to any wildlife corridors or linkages. The site is surrounded by, and isolated within, residential development, commercial development, and roads/highways (REC Consultants Inc., 2014). The Peter Rios Estates Apartment Complex Project site is not part of a local or regional corridor. The site is within urban/developed land. There is no potential for the proposed project to add to a cumulative loss of this resource. With implementation of mitigation, the project in conjunction with other cumulative projects would result in a less than significant impact to wildlife movement and nursery sites.

2.1.3.5 Local Policies, Ordinances, Adopted Plans

The proposed project and the four identified cumulative projects (Lakeside Tractor Supply Project, Lake Jennings Park Road Subdivision Project, Eastern Service Area Secondary Connection Project, and Peter Rios Estates Apartment Complex Project) are all required to conform to local policies, ordinance, and adopted plans, as well as federal and state regulations. Therefore, there is no potential for the project to add to a cumulative impact with respect to these plans and cumulative impacts relative to these plans are determined to be less than significant.

2.1.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to biological resources would occur with project implementation:

Impact BIO-1: Implementation of the proposed project would remove 15 individual coast live oak trees to accommodate structures, roadways, parking lots, and grading on the project site. Individual oak trees are considered locally important. Therefore, impacts to individual coast live oak trees are considered significant.

Impact BIO-2: In the event that least Bell's vireos move into the riparian area prior to project construction, and construction is proposed during the breeding season and within 300 feet of the riparian habitat, a potentially significant indirect impact to this species would occur.

Impact BIO-3: General construction activities in the vicinity of Los Coches Creek have the potential to indirectly impact riparian resources. Short-term noise impacts related to construction could impact sensitive wildlife utilizing the riparian area. These are potentially significant indirect impacts.

Impact BIO-4: Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. Accessibility to the site, trash dumping, and increased noise and light from operation of the proposed project may cause adverse impacts.

Impact BIO-5: Implementation of the proposed project would result in the removal of 6.91 acres of non-native grassland during clearing and grading to prepare building pads and parking areas for construction. Impacts to this habitat (Tier III habitat) would be considered locally important and significant in accordance with the BMO.

Impact BIO-6: Implementation of the proposed project would result in temporary grading activities in the RPO buffer.

2.1.5 Mitigation

The following mitigation measures are required to reduce potential impacts associated with the proposed project:

M-BIO-1 Impacts to approximately 15 individual oak trees will be mitigated through the off-site acquisition of 0.90 acre of coast live oak woodland within an approved mitigation bank within the MSCP (Crestridge Conservation Bank or other MSCP approved mitigation area).

M-BIO-2 If any construction activities are proposed between March 15 and September 15, prior to initiation of any construction activities within 300 feet of the southern riparian forest, two least Bell's vireo surveys at least one week apart shall be performed by a qualified biologist with experience in conducting least Bell's vireo surveys. If no least Bell's vireos are identified during the protocol surveys, then construction may proceed; however, the site shall be surveyed weekly for least Bell's vireo. If least Bell's vireos are detected during the protocol survey or weekly site surveys, construction-related noise levels must not exceed 60 dBA hourly Leq at the limits of the southern riparian forest. If least Bell's vireos are not detected by June 30, weekly surveys may be suspended, as nesting is unlikely after that date.

M-BIO-3

- No storage or fueling of construction equipment within 100 feet of the Los Coches Creek floodway will be allowed.
- No storage or fueling of construction equipment within the RPO wetland buffer will be allowed.
- ~~Only use of low-sodium lighting shall be permitted.~~ Lighting shall be selectively placed and/or shielded to avoid light directly entering into the southern riparian forest and RPO wetland habitat from the proposed development and/or construction.
- As a result of short-term construction impacts, for construction from January 1 to June 1, prior to initiation of any construction activities within 300 feet of the southern riparian forest, one survey for the presence of nesting raptor species listed as SSC by the CDFW, shall be performed by a qualified biologist. If no nesting raptors are identified, then construction may proceed. If nesting raptors are identified onsite, then no construction within 300 feet shall be allowed until the nest is no longer active or until the County concurs that a reduced buffer would not impact nesting activities, such as where a natural topographic feature shields the work site from the nest.
- Temporary construction fencing shall be placed along the edge of the RPO wetland buffer revegetation area during construction activities.
- The initial phases of vegetation clearing within 300 feet of the southern riparian forest shall be monitored by a biologist experienced in construction monitoring. The biologist shall be supervised by a County Certified Biologist. The monitor shall perform daily visits and make a written report within 10 working days to the Director of Planning & Development Services confirming compliance with the construction mitigation measures. If noncompliance is observed, the biological

monitor shall immediately halt construction activities and shall report the noncompliance within 24 hours by phone or in person to the County Inspector.

- Removal of invasive exotic species within the southern riparian forest and buffer shall be performed without the use of mechanized equipment.

M-BIO-4

- A 6-foot cinderblock wall and/or fence shall be placed north of the trail at the top of the slope to prevent unauthorized access into the open space area.
- Permanent signage shall be placed along the open space boundary. Specific placement of the signage includes the northern side of the masonry wall, the eastern edge of the open space boundary adjacent to Rios Canyon Road, the western edge of the open space boundary adjacent to Ridge Hill Road, and along the southern side of the trail. The signage shall be installed at intervals of 50 feet. The signs shall be corrosion resistant and a minimum size of 6 inches by 9 inches. The signage shall be attached to posts, not less than 3 feet in height from the ground surface. The signs shall state the following:

  Sensitive Environmental Resources
  Area Restricted by Easement
  Entry without express written permission from the County of San Diego is prohibited. To report a violation or for more information about easement restrictions and exceptions contact the County of San Diego,
  Planning & Development Services
  Reference: PDS2014-ER-14-014-013

- Evidence that the permanent signs have been placed to protect all open space easements shall be submitted to the Director of Planning & Development Services. Evidence shall include photographs of all signs installed, and a signed statement, from a California Registered Engineer or licensed surveyor, that permanent signs have been placed on the open space easement boundaries in accordance with the requirements of this condition.
- The applicant shall enter into an Open Space Agreement with the County to ensure perpetual management of the open space and security to ensure that the maintenance is performed in accordance with on-going conditions of the Site Plan. The management shall include all maintenance responsibilities and security issues, including but not limited to the regular removal of horse manure, trash, and invasive species.

M-BIO-5

Impacts to 6.91 acres of non-native grassland will be mitigated through the off-site acquisition of 3.46 acres of a Tier III or greater habitat within an approved mitigation area (Crestridge Conservation Bank or other MSCP approved mitigation area) which meets the satisfaction of the County's Director of Planning & Development Services.

M-BIO-6

- The buffer between the RPO wetland and development shall be revegetated to convert 1.14 acres of non-native grassland to a higher quality (Tier III or greater),

- low density native shrub/grassland community that meets County requirements for fire safety and protection.
- A Revegetation Plan will be prepared prior to approval of a Final Map for the 1.14- acre habitat conversion area. The plan shall be prepared and implemented to the satisfaction of the Director of Planning & Development Services.

2.1.6 Conclusions

Implementation of the proposed project would remove 15 individual coast live oak trees to accommodate structures, roadways, parking lots, and grading on the project site. Individual oak trees are considered locally important. Therefore, impacts to individual coast live oak trees are considered significant. Mitigation Measure M-BIO-1 would require offsite acquisition of 0.90 acre of oak woodland within an approved mitigation bank within the MSCP (Crestridge Conservation Bank or other MSCP approved mitigation area). The acquisition of this habitat would ensure the preservation in perpetuity. This would offset project impacts to individual coast live oak trees and reduce the impact to below a level of significance.

Although no least Bell's vireo were found during focused surveys for the project site, in the event that least Bell's vireos move into the riparian area prior to project construction, and construction is proposed during the breeding season and within 300 feet of the riparian habitat, an indirect impact to this species would occur. Implementation of Mitigation Measure M-BIO-2 would require preconstruction protocol surveys to be conducted during the breeding season. Through the use of preconstruction surveys and additional weekly surveys after construction, it can be determined if least Bell's vireo are occupying the riparian area. If they are found, the noise levels of construction activities would be monitored to ensure that noise levels are kept at a level that would not have an adverse impact on the species. Therefore, implementation of Mitigation Measure M-BIO-2 would reduce the impact to below a level of significance.

General construction activities in the vicinity of Los Coches Creek have the potential to indirectly impact riparian resources. Short-term noise impacts related to construction could impact sensitive wildlife utilizing the riparian area. Mitigation Measure M-BIO-3 would ensure that fueling and storage of construction equipment takes place at least 100 feet away from the floodway and outside the RPO buffer, locating and/or shielding light away from the southern riparian forest, and conducting a nesting raptor survey prior to initiation of project construction. The incorporation of a 500-foot buffer for nesting raptors is consistent with the MSCP, which has been approved by the wildlife agencies. Implementation of M-BIO-3 would reduce the indirect impact from the project to a less than significant level.

Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. Accessibility to the site, trash dumping, and increased noise and light from operation of the proposed project may cause adverse impacts. However, implementation of Mitigation Measure M-BIO-4 would require the construction of a masonry wall, the use of shielded ~~low-sodium~~ lighting directed away from the southern riparian forest and RPO buffer, the placement of signage along the open space boundary, and the periodic removal of trash and unwanted material from the open space. Implementation of M-BIO-4 would reduce the indirect impact from the project to a less than significant level.

Implementation of the proposed project would result in the removal of 6.91 acres of non-native grassland during clearing and grading to prepare building pads and parking areas for construction. Impacts to this habitat (Tier III habitat) would be considered locally important and significant in accordance with the BMO. Mitigation Measure M-BIO-5 would require the offsite acquisition of

3.46 acres of BMO Tier III or higher habitat that the Director of Planning & Development Services determines would provide equivalent or better raptor foraging habitat than that impacted onsite. The acquired habitat would be in an approved mitigation area, and would ensure the preservation of this habitat in perpetuity for use as raptor foraging habitat. Implementation of Mitigation Measure M-BIO-5 would offset project impacts to non-native grassland and reduce the impact to below a level of significance.

Implementation of the proposed project would result in temporary grading activities in the RPO buffer. This impact would be reduced to below a level of significance with implementation of Mitigation Measure M-BIO-6, which would require the implementation of a revegetation plan to the satisfaction of the Director of Planning & Development Services. Implementation of the revegetation plan would replace the vegetation removed during project grading and enhance the biological value of the buffer area. This would reduce the impacts to below a level of significance.

With implementation of Mitigation Measures M-BIO-1 through M-BIO-6, impacts to biological resources would be mitigated to below a level of significance.

As discussed in Section 2.1.3, four projects were identified within the cumulative impact study area. Project information and potential impacts on biological resources are shown in Table 2.1-6. With implementation of mitigation, the project in conjunction with other cumulative projects would result in less than significant cumulative impacts to ~~No cumulative impacts related to~~ biological resources ~~were identified for the project~~.

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Figure 2.1-1.
Biological Resources on Project Site (Aerial View)

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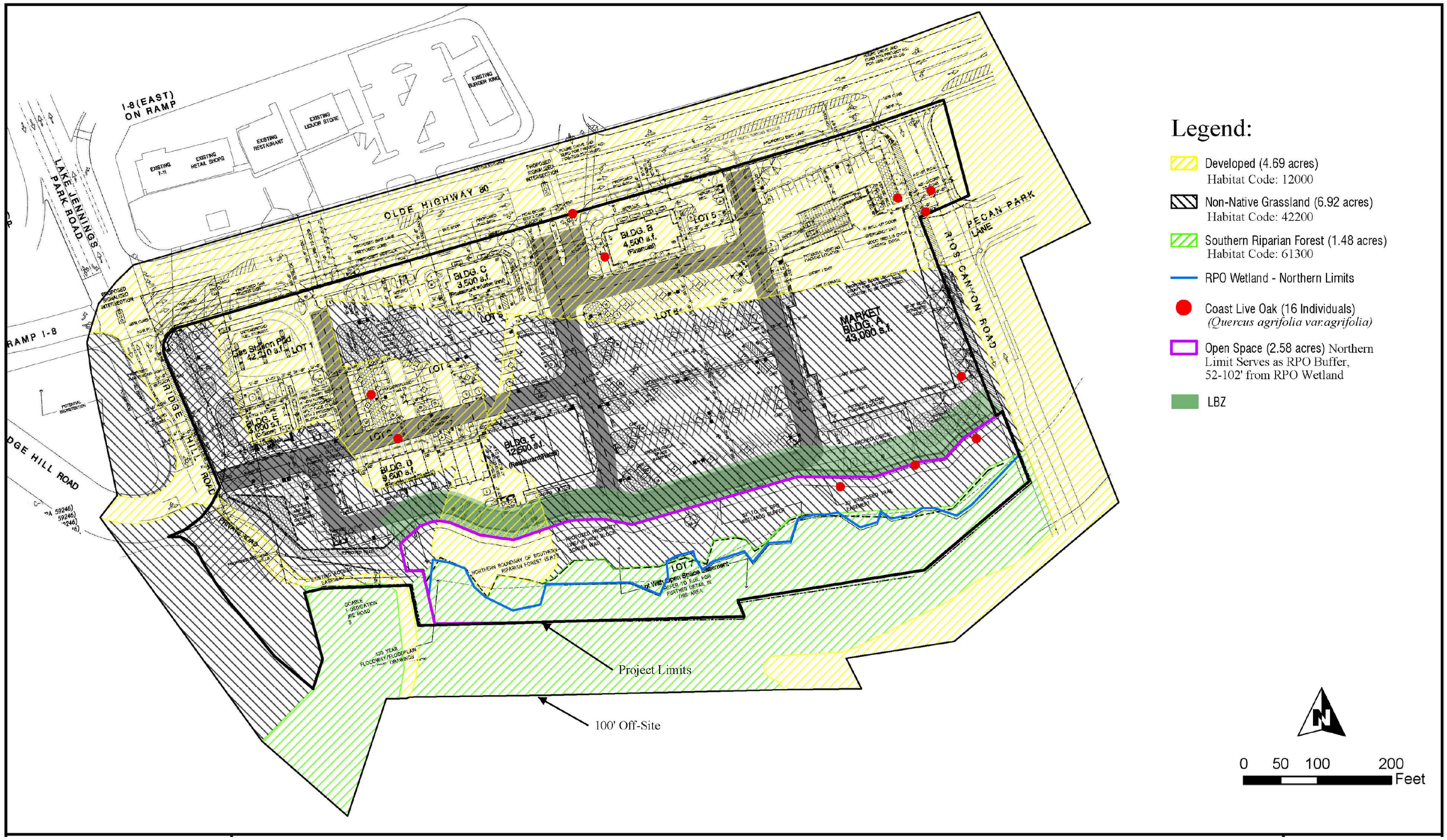

Figure 2.1-2.
Biological Resources on Project Site

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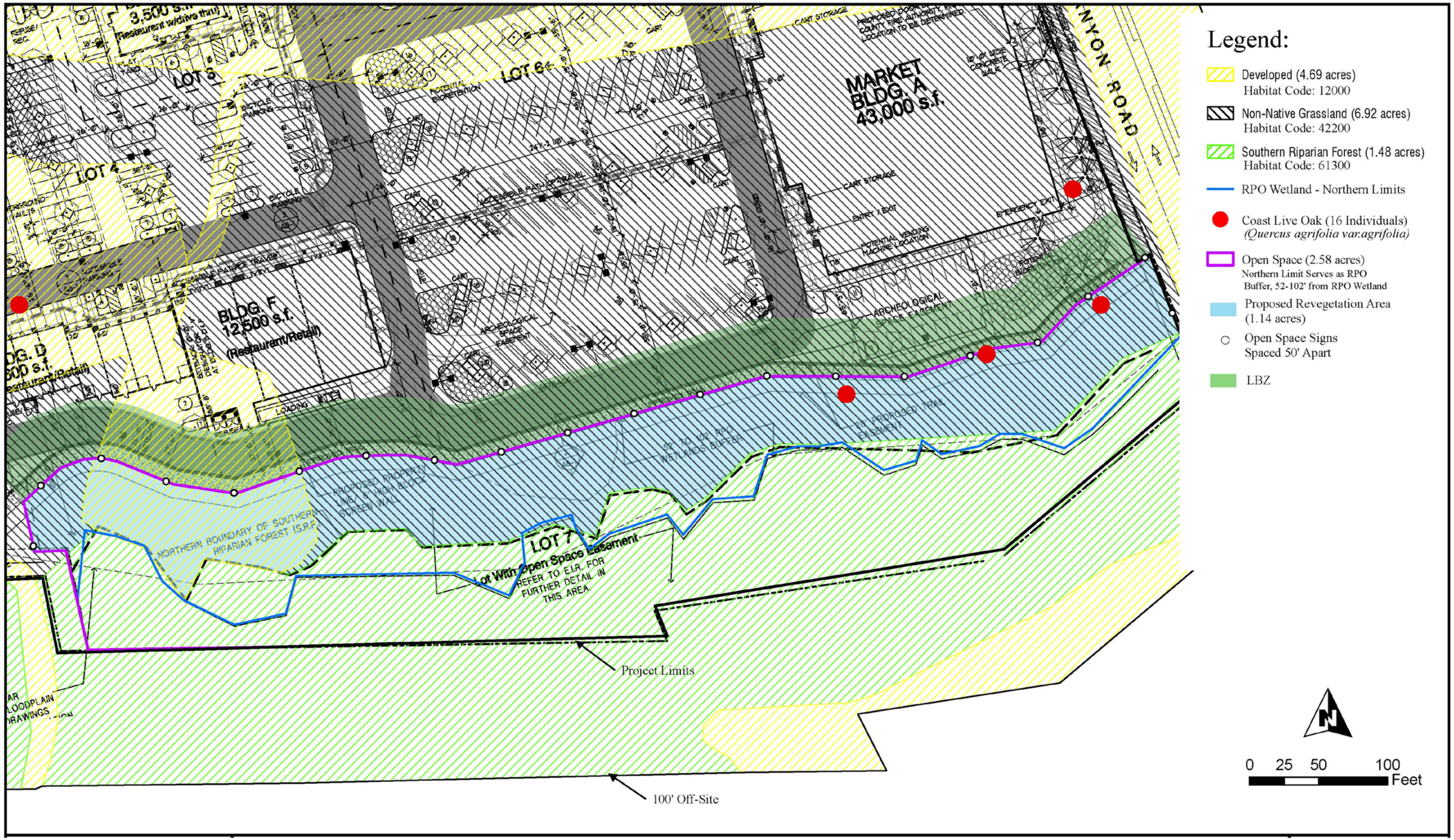

Figure 2.1-3.
Proposed Open Space

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Table 2.1-1.
Plant Species Observed on the Site

Family Name	**Species Name♦**	Common Name	Habitat*
AIZOACEAE	♦*Carpobrotus* sp.	Ice plant	DEV
ANACARDIACEAE	♦*Schinus molle*	California pepper	DEV
	Toxicodendron diversilobum	Poison oak	SRF
ARECACEAE	♦*Washingtonia robusta*	Mexican fan palm	DEV
ASTERACEAE	*Ambrosia psilostachya*	Ragweed	SRF, NNG
	Artemisia californica	Coastal sagebrush	SRF
	Baccharis sarothroides	Broom baccharis	NNG
	♦*Silybum marianum*	Milk thistle	NNG
BRASSICACEAE	♦*Brassica nigra*	Black mustard	NNG, SRF
	♦*Raphanus sativus*	Wild radish	NNG, SRF
CAPRIFOLIACEAE	*Sambucus nigra* subsp. *caerulea*	Blue elderberry	NNG, SRF
CHENOPODIACEAE	♦*Atriplex semibaccata*	Australian saltbush	NNG
	♦*Salsola tragus*	Russian thistle	NNG
CUCURBITACEAE	*Marah macrocarpus*	Wild cucumber	SRF
FAGACEAE	*Quercus agrifolia*	Coast live oak	SRF, NNG, DEV
GERANIACEAE	♦*Erodium cicutarium*	Filaree	NNG
	♦*Geranium carolinianum*	Carolina geranium	NNG
	♦*Pelargonium* sp.	Geranium	DEV
JUGLANDACEAE	♦*Carya* sp.	Pecan tree	NNG, DEV
LAMIACEAE	♦*Marrubium vulgare*	Horehound	NNG
LILIACEAE	♦*Kniphofia uvaria*	Red-hot poker	DEV
OLEACEAE	♦*Olea europaea*	Olive tree	NNG, DEV
OXALIDACEAE	♦*Oxalis pes-caprae*	Sorrel	Dev
PINACEAE	*Pinus* sp.	Pine tree	DEV
PLATANACEAE	*Platanus racemosa*	California sycamore	SRF
POACEAE	♦ *Arundo donax*	Giant Reed	SRF
	♦*Avena* sp.	Wild oat	NNG, SRF
	♦*Bromus diandrus*	Ripgut grass	NNG, SRF
	♦*Bromus tectorum*	Downy brome	NNG
	♦*Cynodon dactylon*	Bermuda grass	NNG, DEV
	♦*Festuca* sp.	Ryegrass	NNG
	♦*Pennisetum setaceum*	Fountain grass	NNG
POLEMONIACEAE	*Eriastrum sapphirinum*	Wooly-star	NNG
POLYGONACEAE	♦*Rumex crispus*	Curly dock	NNG
PUNICACEAE	♦*Punica granatum*	Pomegranate tree	DEV
ROSACEAE	*Rubus ursinus*	California blackberry	SRF
RUBIACEAE	*Galium angustifolium*	Narrow-leaf Bedstraw	NNG
SALICACEAE	♦*Populus balsamifera*	Black cottonwood	DEV
	Salix gooddingii	Black willow	SRF
	Salix lasiolepis	Arroyo willow	SRF
	Salix sp.	Willow	SRF
SOLANACEAE	♦*Nicotiana glauca*	Tree tobacco	SRF, NNG
VITACEAE	*Vitis girdiana*	Wild grape	SRF, NNG

Notes: ♦ Denotes non-native species
SRF – Southern Riparian Forest; NNG – Non-native Grassland; DEV – Urban developed

Table 2.1-2.
Wildlife Species Observed on the Project Site

Common Name	Scientific Name	Habitat Observed*	Number Observed (estimate)
Insects			
Cabbage white	*Artogeia rapae*	NNG	many
California ringlet	*Coenonympha tullia california*	NNG	2
Common white	*Pontia protodice*	NNG	many
Cricket	Family Gryllidae	NNG	many
Harvester ant	*Pogonomyrmex rugosus*	NNG	many
Fiery Skipper	*Hylephila phyleus*	NNG	many
Painted lady	*Vanessa cardui*	NNG	many
Pigmy Blue	*Brephidium exilis*	NNG	2
Red Admiral	*Vanessa atalanta*	NNG	many
Red ant	*Formica* sp.	NNG	many
Sara orangetip	*Anthocharis sara*	NNG	1
Umber skipper	*Paratrytone melane*	NNG	1
Birds			
American crow	*Corvus brachyrhynchos*	Overhead	1
Black-headed grosbeak	*Pheucticus melanocephalus*	SRF	2
Black phoebe	*Sayornis nigricans*	DEV	1
Bushtit	*Psaltriparus minimus*	NNG, SRF	20+
California quail	*Callipepla californica*	NNG	2
California towhee	*Pipilo crissalis*	NNG, SRF	3
Common raven	*Corvus corax*	Overhead	3
Common yellowthroat	*Geothlypis trichas*	SRF	2
Coopers Hawk ♦	*Accipiter cooperii*	DEV, SRV	2
European starling	*Sturnus vulgaris*	DEV	2
Hooded oriole	*Icterus cucullatus*	SRF	5
House finch	*Carpodacus mexicanus*	NNG, SRF	12
Lesser goldfinch	*Carduelis psaltria*	SRF	1
Mourning dove	*Zenaida macroura*	DEV	1
Red-shouldered hawk ♦	*Buteo lineatus*	SRF	1
Scrub jay	*Aphelocoma coerulescens*	DEV	1
Song sparrow	*Melospiza melodia*	SRF	2
White-crowned sparrow	*Zonotrichia leucophrys*	SRF	2
Wilson's warbler	*Wilsonia pusilla*	SRF	1
Mammals			
Gopher	*Thomomys bottae*	NNG	burrows
Ground squirrel	*Spermophilus beecheyi*	DEV	1
Domestic dog	*Canis domestica*	DEV	3

Notes: ♦ Indicates a sensitive species

SRF – Southern Riparian Forest; NNG – Non-native Grassland; DEV – Developed

Table 2.1-3.
Sensitive Plant Species with the Potential to Occur
Within or Adjacent to the Project Site

Species	Federal/State/*CRPR*	Potential to Occur
Acanthomintha ilicifolia San Diego thorn-mint Annual herb, Blooms: April-June	FT/SE/1B.1	Low likelihood; no clay soils onsite and this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ambrosia pumila San Diego ambrosia Perennial herb, Blooms: May-September	FE/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Artemisia palmeri San Diego sagewort Shrub (deciduous), Blooms: May-September	-/-/4.2	Low likelihood; though appropriate habitat is found onsite, this shrub species would have been identifiable at time of survey.
Astragalus deanei Dean's milk-vetch Perennial herb, Blooms: February-May	-/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Baccharis vanessae Encinitas baccharis Shrub (deciduous), Blooms: August-November	FT/SE/1B.1	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.
Bloomeria clevelandii San Diego goldenstar Perennial herb (bulbiferous), Blooms: May	-/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Brodiaea orcuttii Orcutt's brodiaea Perennial herb, Blooms: May-July	-/-/1B.1	Low likelihood; no clay soils onsite and this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ceanothus cyaneus Lakeside ceanothus Shrub (evergreen), Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this shrub species would have been identifiable at time of survey.
Ceanothus verrucosus Wart-stemmed ceanothus Shrub (evergreen), Blooms: December-April	-/-/2B.2	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.
Centromadia pungens subsp. laevis Smooth tarplant Annual herb Blooms: April-September	-/-/1B.1	Low likelihood, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Chorizanthe polygonoides var. *longispina* Long-spined spineflower Annual herb, Blooms: April-July	-/-/1B.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Clarkia delicata Delicate clarkia Annual herb Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.

Species	Federal/State/*CRPR*	Potential to Occur
Comarostaphylis diversifolia subsp. *diversifolia* Summer holly Shrub (Evergreen), Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.
Dudleya variegata Variegated dudleya Perennial herb, Blooms: May-June	-/-/1B.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ericameria palmeri var. *palmeri* Palmer's goldenbush Shrub (evergreen), Blooms: July-November	-/-/1B.1	Low likelihood; appropriate habitat is not found onsite. Additionally, this shrub species would have been observable at time of survey.
Ferocactus viridescens San Diego barrel cactus Shrub (stem succulent), Blooms: May-June	-/-/2B.1	Low likelihood; though appropriate habitat is found onsite, this shrub species would have been identifiable at time of survey.
Harpagonella palmeri Palmer's grapplinghook Annual herb, Blooms: March-May	-/-/4.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Monardella hypoleuca subsp. *lanata* Felt-leaved monardella Perennial herb, Blooms: June-August	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.
Monardella viminea Willowy monardella Perennial herb, Blooms: June-August	FE/SE/1B.1	Moderate likelihood; appropriate habitat is found onsite. This species would have been identifiable at time of survey. This species has not been documented in the El Cajon quad.
Nolina interrata Dehasa nolina Perennial herb, Blooms: June-July	-/SE/1B.1	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.
Stipa diegoensis San Diego Needlegrass Perennial herb Blooms: February - June	-/-/4.2	Low likelihood, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Tertracoccus diocus Parry's tetracoccus Shrub (deciduous), Blooms: April-May	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.

Notes: (1) Status codes are as follows:

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS
The California Rare Plant Rank (CRPR) Lists:

1A Plants presumed extirpated in California and either rare or extinct elsewhere.
1B Plants rare, threatened, or endangered in California and elsewhere.
2A Plants presumed extirpated in California, but common elsewhere.
2B Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information (A Review List).
4 Plants of limited distribution (A Watch List).

Species	Federal/State/*CRPR*	Potential to Occur

Threat Ranks:

0.1 Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80 percent of occurrences threatened/moderate degree and immediacy of threat)
0.3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

FEDERAL SPECIES DESIGNATIONS

Category	Description
FE	Federally listed Endangered species.
FT	Federally listed Threatened species.
FC	Federal Candidate.
BCC	Birds of Conservation Concern.

STATE SPECIES DESIGNATIONS

Category	Description
SE	State listed as Endangered.
ST	State listed as Threatened.
SR	State-listed Rare.
SCE	State candidate for listing as Endangered.
SCT	State candidate for listing as Threatened.
SSC	CDFW "Species of Special Concern."
FP	Fully Protected.
WL	Watch List.

Table 2.1-4.
Sensitive Animal Species with the Potential to Occur Within or Adjacent to the Project Site

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
Insects				
Dun skipper	*Euphyes vestris harbisoni*	-/-/-	Woods and edges, prairies and roadsides, seeps and springs in southern California (Glassberg 2001). Primary host plant *Carex spissa* (Faulkner and Klein 2003).	Low: no host plant (*Carex spissa*) onsite.
Hermes copper butterfly	*Lycaena hermes*	FC/-/County Sensitive	CSS, mixed chaparral and chamise chaparral; 0-3000ft. Host plant *Rhamnus crocea*, in proximity to *Eriogonum fasciculatum*.	Low, no host plant or nectar plant onsite.
Monarch butterfly	*Danaus plexippus*	Under Review/-/-	Wintering sites composed of grassland, oak woodlands and montane meadows; host plant milkweed (*Asclepias* sp.). 500 to over 3000ft.	Low. Host plant does not occur onsite.
Quino checkerspot butterfly	*Euphydryas editha quino*	FE/-/-	Open shrub habitats, primary host plant is *Plantago erecta.*	Low. No Quino checkerspot butterfly were observed during focused
Amphibians				
California red-legged frog	*Rana aurora draytonii*	FT/SSC/-	Inhabits quiet pools of streams, marshes, and occasionally ponds; 500- 3,000 ft.	Low: No permanent sources of water onsite.
Southwestern pond turtle	*Actinemys marmorata pallida*	-/SSC/-	Found in major rivers and streams, especially in headwater areas; 0-1,000 ft.	Low. Appropriate river and stream habitat do not occur onsite.
Western spadefoot	*Scaphiopus hammondii*	Under Review/ SSC/-	Grassland situations can occasionally occur in valley-foothill hardwood woodlands. Populations may persist a few years in orchard-vineyard habitats; 0-3,000 ft.	Low: No appropriate habitat onsite.
Reptiles				
Coastal whiptail	*Cnemidophorus tigris multiscutatus*	-/-/-	Mixed chaparral, riparian, oak woodlands and chamise chaparral. Prefers rocky firm soils but avoids dense grasslands and wet areas; 0-1,000 ft.	Low. No appropriate habitat onsite.
Coronado Island skink	*Eumeces skiltonianus interparietalis*	-/SSC/-	CSS, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes. Found during the winter after rainfalls or during spring; 0-3,000 ft.	Low. No appropriate habitat onsite.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
Orange-throat whiptail	*Cnemidophorus hyperythrus*	-/SSC/-	Can be found in CSS, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 0-1,000 ft.	Low. No appropriate habitat onsite.
San Diego banded gecko	*Coleonyx variegatus abbotti*	-/-/-	This species is uncommon in coastal scrub and chaparral mostly occurring in granite or rocky out crops in this habitat (Zeiner *et. al.* 1988).	Low. No appropriate habitat onsite.
San Diego horned lizard	*Phrynosoma coronatum blainvillii*	-/SSC/-	Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grass habitats; needs open areas for basking, ants and other insect prey. 0-8,000 ft.	Low. No appropriate habitat onsite.
San Diego ringneck snake	*Diadophis punctatus similis*	-/-/County Sensitive	CSS, mixed chaparral, riparian, oak woodlands, chamise chaparral, mixed conifer, closed cone forest in moist micro-habitats. Can be found on surface during winter after rainfalls or during spring; 0-7,200 ft.	Low. No appropriate habitat onsite.
Black legless lizard	*Anniella pulchra pulchra*	-/SSC/-	CSS, grassland, riparian and coastal desert dunes. Found in sandy loam and areas of accumulated leaf litter beneath shrubs and trees in moist micro-habitats; 0 to 5,000 ft.	Low. No appropriate habitat onsite.
South Coast garter snake	*Thamnophis sirtalis novum*	-/SSC/-	South Coast garter snake appears restricted to marsh and upland habitats near permanent water that have good strips of riparian vegetation.	Low. Appropriate riparian vegetation does not occur onsite.
Two-striped garter snake	*Thamnophis hammondii*	-/SSC/-	Found in or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools.	Moderate. Appropriate habitat occurs onsite, but surrounded by development.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
Mammals				
American badger	*Taxidea taxus*	-/SSC/-	This species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats; 0 to over 3,000 ft.	Low. Habitat onsite is highly disturbed.
Big free-tailed bat	*Nyctinomops macrotis*	-/SSC/-	This species is found in a variety of plant associations including desert scrub, various woodlands and coniferous forests. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops; 0 to 3,000 ft.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	-/SSC/-	Occupies CSS, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3,000 ft.	Low. Appropriate habitat does not occur onsite.
Western mastiff bat	*Eumops perotis californicus*	-/SSC/-	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting.	Low. Appropriate nesting habitat does not occur onsite. In addition the site is not wide enough to support this species.
California mountain Lion	*Felis concolor californica*	-/-/County Sensitive	Found in a variety of different habitats from desert to coast range forest; 0 to 10,000 ft.	Low. Habitat is surrounded by development.
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	-/SSC/-	Nocturnal. Found in CSS and mixed and chamise chaparral. Seeks cover in rocky/gravelly areas with a yucca overstory; 500-3,000 ft.	Low, appropriate yucca overstory does not occur onsite.
Pallid bat	*Antrozous pallidus*	-/SSC/-	CSS, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers snags (especially oak), rocky outcrops, cliffs and crevices with access to open habitats for foraging; 0-6,000 ft.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	-/SSC/-	This species is found in a variety of plant associations including desert scrub, coastal scrub and pine oak woodlands. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky areas.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
San Diego black-tailed jackrabbit	*Lepus californicus bennetti*	-/SSC/-	0 to 3,000 ft. Chaparral, CSS, mixed oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops.	Low. Appropriate habitat does not occur onsite.
San Diego desert woodrat	*Neotoma lepida intermedia*	-/SSC/-	Nocturnal in CSS, desert, oak woodlands, chamise chaparral and rocks in moderate to dense vegetation. Most abundant in rocky areas -- prefers rock outcrops and crevices for nest sites, but also builds nests in low branches of trees. 500-3,000 ft.	Low. No nests were observed onsite.
Western small-footed myotis	*Myotis ciliolabrum*	-/-/-	Occurs in arid uplands -- woody and brushy habitats near water. Roosts in caves, buildings, mines, crevices, bridges, and bark. 0 – 8,000 ft.	Low. Appropriate roosting habitat does not occur onsite.
Southern grasshopper mouse	*Onychomys torridus ramona*	-/SSC/-	Nocturnal in CSS, mixed chaparral, grassland, and chamise chaparral. Low to moderate shrub cover is preferred; 500-3,000 ft.	Low. Habitat onsite is highly disturbed.
Southern mule deer	*Odocoileus hemionus fuiliginata*	-/-/County Sensitive	The mule dear is extremely adaptable occupying all but two or three of the major vegetation types in the western United States	Low, habitat is surrounded by development.
Spotted bat	*Euderma maculatum*	-/SSC/-	Found in foothills, mountains, and desert regions of southern California. Feeds over water and near ground Roosts in rock crevices, cliffs, caves, and buildings. Moth specialist.	Low, appropriate foraging habitat does not occur onsite.
Townsend's big-eared bat	*Corynorhinus townsendii*	-/SSC/-	10 600 ft. All but subalpine and alpine found in habitats. Requires caves, mines, tunnels, buildings, or other human- made structures for night, day, hibernation or maternity roosts; 500-10,000 ft.	Low. Appropriate nesting habitat does not occur onsite.
Western red bat	*Lasiurus blossevillii*	-/SSC/ County Sensitive	Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands forests, and croplands; 0 to 3,000 ft.	Low. Appropriate roosting habitat does not occur onsite.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
Yuma myotis	*Myotis yumanensis*	-/-/-	Mixed chaparral, riparian, oak woodland and pinon juniper. Optimal habitats are open forests and woodlands with sources of water over which to feed; roosts in buildings, mines, caves, bridges, crevices, and abandoned swallow nests. Sea level to 11,000 feet, but uncommon above 8,000 feet.	Low, appropriate water source over which to feed does not occur onsite.
Birds				
White-tailed kite (nesting)	*Elanus leucurus*	-/FP/-	Yearlong coastal & valley lowlands, usually near ag. areas. Forage: open grasslands, meadows, farmlands, wetlands, freeway divides. Nests in tops of tall trees near open areas.	Moderate. Appropriate habitat occurs onsite.
Western burrowing owl	*Athene cunicularia hypugea*	BCC/SSC/-	Open, dry grasslands agricultural and range lands, and desert habitats of low growing vegetation (associated with burrowing animals); 0-1,000 ft.	Low. Habitat onsite is highly disturbed.
California Gnatcatcher	*Polioptila californica californica*	FT/SSC/-	Most numerous in low, dense CSS habitat of coastal hills.	Low, no CSS or other suitable habitat onsite.
California gull (nesting colony)	*Larus californicus*	-/WL/-	Non-breeding colonies in lakes and bays; In breeding season on interior lakes and marshes and in winter mostly on the seacoast; 0 to over 3,000 ft.	Low. Appropriate breeding habitat does not occur onsite.
Common barn-owl	*Tyto alba*	-/-/-	Riparian and oak woodlands; 0-1,000 ft.	Moderate. Appropriate habitat occurs onsite.
Golden eagle (nesting and wintering)	*Aquila chrysaetos*	BCC/FP, WL/-	Mountains, foothills, and adjacent grassland, open areas and canyons; 0-11,500 ft. (nesting/wintering)	Low. Appropriate nesting habitat does not occur onsite.
Grasshopper sparrow (nesting)	*Ammodramus savannarum*	-/SSC/ MSCP Covered species	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches; 0 to over 3,000 ft.	Low. Habitat onsite is highly disturbed and grassland is not dense enough.
Great blue heron (nesting colony)	*Ardea herodias*	-/-/-	Wetlands with tall trees and rock ledges; 0-1,000 ft.	Low, appropriate wetland does not occur onsite.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
California horned lark	*Eremophila alpestris actia*	-/WL/-	Open patches of bare land alternating with low vegetation in grasslands, montane meadows, and sagebrush plains; 0 to over 3,000 ft.	Low. Not observed during surveys.
Least Bell's vireo (nesting)	*Vireo belli pusillus*	FE/SE/-	Rivers and larger creeks. Nests in willows, mule fat, and riparian species; 0-1,000 ft.	Low: not detected during focused surveys and habitat onsite highly disturbed
Loggerhead shrike (nesting)	*Lanius ludovicianus*	-/SSC/-	Roadside vegetation, thickets, savanna, CSS, grasslands, riparian, oak woodlands and desert scrub and wash or any open country with high perches as lookouts; 0-3,000 ft.	Moderate. Roadside vegetation, grasslands and high perches occur onsite.
Northern harrier (nesting)	*Circus cyaneus*	-/SSC/-	Grasslands and salt, alkali and freshwater marshes; 0-1000ft. Nests on ground in shrubby vegetation, usually emergent wetlands or along rivers or lakes. May also nest in grasslands, grain fields, or on sagebrush flats several miles from water.	Low. Appropriate marsh habitat does not occur onsite.
Prairie falcon (nesting)	*Falco mexicanus*	-/WL/-	Rare to uncommon winter visitor, rare breeding resident. Widespread throughout San Diego County during migration (fall) and winter, occurring usually in open grassland, agricultural	Low. Habitat onsite is highly disturbed and not large enough to support this species.
Southwestern willow flycatcher (nesting)	*Empidonax traillii extimus*	FE/SE/-	Fields and desert scrub along streams. Found in dense willows and rivers. Nests over standing or running waters; 0-1,000 ft.	Low: Habitat onsite highly disturbed and dominated by arundo. In addition, not wide enough to support.
Turkey vulture	*Cathartes aura*	-/-/County Sensitive	Spring and fall migrant, uncommon to locally common winter visitor and rare to uncommon summer resident of San Diego County (Unitt 1984)	Moderate. Foraging habitat occurs offsite.
Western bluebird	*Sialia mexicana*	-/-/County Sensitive	Occupy open habitats with scattered trees and the edges of open coniferous and deciduous forests	Moderate: potential winter resident.

Common Name	Scientific Name	Federal/ State/County Status	Habitat	Potential to Occur
Yellow warbler (nesting)	*Setophaga petechia*	BCC/SSC/-	Riparian; 0-500 ft.	Moderate: Appropriate habitat onsite.
Yellow-breasted chat (nesting)	*Icteria virens*	-/SSC/-	Found in dense thickets and brushy areas in riparian habitats; 0-3,000 ft.	Moderate: Appropriate habitat onsite.

Notes: (1) Status codes are as follows:

FEDERAL SPECIES DESIGNATIONS

Category	Description
FE	Federally listed Endangered species.
FT	Federally listed Threatened species.
FC	Federal Candidate.
BCC	Birds of Conservation Concern.

STATE SPECIES DESIGNATIONS

Category	Description
SE	State listed as Endangered.
ST	State listed as Threatened.
SR	State-listed Rare.
SCE	State candidate for listing as Endangered.
SCT	State candidate for listing as Threatened.
SSC	CDFW "Species of Special Concern."
FP	Fully Protected.
WL	Watch List.

Table 2.1-5.
Habitat Acreage and Anticipated Impacts

Habitat	Total Acres	Impact Neutral (acres)	Direct Impacts (Grading and Fire Clearing) (acres)	Mitigation Ratio	Mitigation Required (acres)
Southern Riparian Forest (Tier I)	1.48	1.48[1]	0.00	1:1	NA
Non-Native Grassland (Tier III)	6.92	0.01[2]	6.91	0.5:1	3.46
Urban-Developed (Tier IV)	4.69	0	4.69	NA	NA
Total Onsite	13.09	1.49	11.60	--	--
Offsite Improvements–Non-native Grassland	0.01	NA	0.01	0.5:1	0.005

[1] 1.44 acres within the biological open space easement, remainder in existing road easement, however, no impacts would occur as a result of the proposed project.

[2] 0.01 acres of non-native grassland within existing road easement, no impacts would occur as a result of the proposed project.

Table 2.1-6.
Biological Resource Impacts for Cumulative Projects

Project Name	Habitat Types Present	Species Potentially Present[1]	Status
Lakeside Tractor Supply Project	Diegan Coastal Sage Scrub Non-native Grassland Disturbed Habitat	Coast live oak trees	~~Major Use Permit application submitted April 15, 2014.~~Constructed
Lake Jennings Park Road Subdivision Project	Non-native Grassland Coastal Sage Scrub Disturbed Wetland Ornamental Vegetation Disturbed Land	Raptors, including Cooper's hawk and red-shouldered hawk	Approved
PDMWD Eastern Service Area Secondary Connection Project	Southern Riparian Forest-disturbed Southern Willow Scrub-disturbed Mule Fat Scrub Disturbed Wetland Streambed Coast Live Oak Woodland Diegan Coastal Sage Scrub Non-Native Grassland Eucalyptus Woodland Non-Native Vegetation Disturbed Habitat Developed Land	Coast live oak Raptors	Approved
Peter Rios Estates Apartment Complex Project	Disturbed Habitat Urban/Developed Riparian Channel (Coast Live Oak Woodland)	Coast live oak Raptors, including red-shouldered hawk	Approved

[1] The cumulative project sites could support other sensitive plant or animal species, but only those species that may be significantly impacted by the proposed project are considered in the cumulative impacts analysis.

Table 2.1-7.
Habitat Acreage and Anticipated Impacts

Habitat	Proposed Project Direct Impacts	Lakeside Tractor Supply Project Direct Impacts[1]	Lake Jennings Park Road Subdivision Project Direct Impacts[2]	Eastern Service Area Secondary Connection Project Direct Impacts[3]	Peter Rios Estates Apartment Complex Project Direct Impacts[4]	Total
Southern Riparian Forest (Tier I)	0.00	0.00	0.00	0.00	0.00	0.00
Non-Native Grassland (Tier III)	6.91	1.85	4.1	1.61	0.00	14.47
Urban-Developed (Tier IV)	4.69	4.0	0.00	2.54	1.05	12.28
Offsite Improvements –Non-native Grassland	0.01	--	--	--	--	--

1 Cummings and Associates, 2014

2 REC Consultants, Inc., 2014

3 Helix Environmental Planning, Inc., 2015

4 Pacific Southwest Biological Services, Inc., 2014